

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1, 3-11, 17-18, 23, 25-28, 33-41, and 67-68. Please amend claims 2 and 24 as follows:

1. (Canceled)

2. (Currently Amended) ~~The method of Claim 1,~~ A method of communicating information between a first program and a second program over a network comprising:
relaying said information between said first program and a first communications program over a first network connection;
relaying said information between said first communications program and a second communications program over a second network connection, wherein
said first communications program creates said second network connection to said second communications program through a first firewall program,
said first firewall program prevents access to said first program initiated by said second program, and
said second network connection is initiated by said first communications program;
and
relaying said information between said second communications program and said second program over a third network connection;
 wherein said first program, said first communications program, said second communications program and said first firewall program are executed on a first computer system.

- 3-11. (Canceled)

12. (Previously Presented) A method of communicating information between a first program and a second program over a network comprising:
 relaying said information between said first program and a first communications program over a first network connection, wherein

said first program creates said first network connection to said first communications program through a first firewall program, said first firewall program prevents access to said first program initiated by said second program, and said first network connection is initiated by said first program; and relaying said information between said first communications program and said second program over a second network connection, wherein said first communications program creates said second network connection.

13. (Original) The method of claim 12, wherein said first program, said first communications program and said first firewall program are executed on a first computer system.

14. (Original) The method of claim 12, wherein said first communications program is a relay program.

15. (Original) The method of claim 12, wherein said first firewall program also prevents access to said first program initiated by said first communications program.

16. (Original) The method of claim 12, wherein said first firewall program prevents access to said first program by preventing an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and said first network connection is created as an out-bound network connection from said first program to said first communications program.

17-18. (Canceled)

19. (Original) A method of communicating information over a network comprising: relaying said information between a first program and a first communications program over a first network connection, wherein said first program requires said first network connection to be initiated as an in-bound network connection relative to said first program,

said first network connection is initiated by said first communications program,
and
said first network connection is in-bound relative to said first program; and
relaying said information between said first communications program and a second
program over a second network connection, wherein
said first communications program creates said second network connection to said
second program through a first firewall program,
said first firewall program prevents access to said first program initiated by said
second program, and
said second network connection is initiated by said first communications program.

20. (Original) The method of claim 19, wherein said first program, said first communications program and said first firewall program are executed on a first computer system.

21. (Original) The method of claim 19, wherein said first communications program is a protocol daemon.

22. (Original) The method of claim 19, wherein
said first firewall program prevents access to said first program by preventing said in-bound network connection to be initiated from a side of said first firewall program that is opposite to a side of said first firewall program to which said first program is coupled, and
said second network connection is created as an out-bound network connection from said first communications program to said second program.

23. (Canceled)

24. (Currently Amended) ~~The method of claim 23,~~ A method of supporting network communications comprising:
creating a first network connection between a first communications program and a first
program;

creating a second network connection from said first communications program to a second communications program, wherein said first communications program creates said second network connection through a first firewall program;
creating a third network connection between a second program and said second communications program; and
communicating information between said first program and said second program by communicating said information over said first network connection, said second network connection and said third network connection,
communicating said information between said first network connection and said second network connection via said first communications program, and
communicating said information between said second network connection and said third network connection via said second communications program;
and,
 wherein said first program, said first communications program, said second communications program and said first firewall program are executed on a first computer system.

25-28. (Canceled)

29. (Original) The method of claim 23, further comprising:
 providing a first instance of a password to said first communications program;
 passing said first instance of said password from said first communications program to said second communications program during creation of said second network connection;
 providing a second instance of said password to said second program;
 passing said second instance of said password from said second program to said second communications program during creation of said third network connection; and
 associating said second connection with said third connection using said first and said second instances of said password.

30. (Original) The method of claim 29, wherein said passing said first instance of said password further comprises:

sending said first instance of said password from said first communications program to said second communications program; and
entering information regarding said second network connection and said password in a connection list maintained by said second communications program, said first instance of said password being entered in a password entry.

31. (Original) The method of claim 29, wherein said associating further comprises:
matching said second instance of said password with said password entry in said connection list, said password entry containing said password;
entering information regarding said third network connection in said connection list; and
associating said second and third connections.

32. (Original) The method of claim 31, wherein said associating said second and third connections further comprises:
relaying said information between said second and third connections.

33-41. (Canceled)

42. (Previously Presented) A computer program product encoded in computer readable media for communicating information over a network, the computer program product comprising:

a first set of instructions, executable by a processor and configured to cause said processor to relay said information between a first program and a first communications program over a first network connection by virtue of being configured to cause said processor to create said first network connection from said first program to said first communications program through a first firewall program, wherein
said first firewall program prevents access to said first program initiated by a second program, and
said first network connection is initiated by said first program; and

a second set of instructions, executable on said processor and configured to cause said processor to relay said information between said first communications program and said second program over a second network connection, wherein said first communications program creates said second network connection.

43. (Original) The computer program product of claim 42, wherein said first set of instructions and said second set of instructions are executed on a first computer system.

44. (Original) The computer program product of claim 42, wherein said first program is executed on a first processor, said first communications program is executed on a second processor and said second program is executed on a third processor.

45. (Original) The computer program product of claim 42, wherein said first firewall program also prevents access to said first program initiated by said first communications program.

46. (Original) The computer program product of claim 42, wherein said first communications program is a relay program.

47. (Original) The computer program product of claim 42, further comprising:
a third set of instructions, executable on said processor and configured to cause said processor to prevent access to said first program through said first firewall program by virtue of being configured to prevent an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and
a fourth set of instructions, executable on said processor and configured to cause said processor to create said first network connection as an out-bound network connection from said first program to said first communications program.

48. (Original) The computer program product of claim 42, further comprising:
a third set of instructions, executable on said processor and configured to cause said processor to create said second network connection from said second program to said first communications program through a second firewall program;

a fourth set of instructions, executable on said processor and configured to cause said processor to prevent access to said second program initiated by said first communications program through said second firewall program; and
a fifth set of instructions, executable on said processor and configured to cause said processor to initiate said second network connection from said second program.

49. (Original) The computer program product of claim 42, further comprising:
a sixth set of instructions, executable on said processor and configured to cause said processor to prevent access to said second program through said second firewall program by inhibiting an in-bound network connection to said second program, said in-bound network connection being in-bound relative to said second program;

50. (Original) A computer program product encoded in computer readable media for communicating information between a first program and a second program over a network, the computer program product comprising:

a first set of instructions, executable by a processor and configured to cause said processor to relay said information between a first program and a first communications program over a first network connection, wherein said first program requires said first network connection to be initiated as an in-bound network connection relative to said first program,
said first network connection is initiated by said first communications program,
and
said first network connection is in-bound relative to said first program; and
a second set of instructions, executable on said processor and configured to cause said processor to relay said information between said first communications program and a second program over a second network connection, wherein said first communications program creates said second network connection to said second program through a first firewall program,
said first firewall program prevents access to said first program initiated by said second program, and
said second network connection is initiated by said first communications program.

51. (Original) The computer program product of claim 50, wherein said first set of instructions and said second set of instructions are executed on a first computer system.

52. (Original) The computer program product of claim 50, wherein said first communications program is a protocol daemon.

53. (Original) The computer program product of claim 52, wherein said plurality of entries comprises a routing table, further comprising:

- a third set of instructions, executable on said processor and configured to cause said processor to prevent access to said first program by virtue of said first firewall program preventing said in-bound network connection to be initiated from a side of said first firewall program that is opposite to a side of said first firewall program to which said first program is coupled; and
- a fourth set of instructions, executable on said processor and configured to cause said processor to create said second network connection as an out-bound network connection from said first communications program to said second program.

54. (Original) A network comprising:

- a first program executed on a first computer;
- a first firewall program executed on a second computer coupled to said first computer;
- a second program executed on a third computer coupled to said second computer; and
- a third program executed on a fourth computer coupled to said third computer, wherein
 - said first firewall program is configured to prevent access to said first program initiated by said third program,
 - said first program is configured to initiate a first network connection to said second program through said first firewall program, and
 - said second program and said third program are configured to support a second network connection between said second program and said third program.

55. (Previously Presented) The network of claim 54, wherein said first program, said first firewall program and said second program are executed on said first computer.

56. (Original) The network of claim 54, wherein said second program and said third program are executed on said fourth computer.

57. (Original) The network of claim 54, further comprising:
a second firewall program executed on a fifth computer coupled between said third computer and said fourth computer.

58. (Original) The network of claim 57, wherein said second firewall program is configured to prevent access to said third program initiated by said first program.

59. (Original) The network of claim 58, wherein said second firewall program prevents access to said third program by inhibiting an in-bound network connection to said third program, said in-bound network connection being in-bound relative to said third program.

60. (Original) The network of claim 57, wherein said first firewall program is also configured to prevent access to said first program initiated by said second program and said second firewall program is also configured to prevent access to said third program initiated by said second program.

61. (Original) The network of claim 57, wherein
said first firewall program is configured to prevent access to said first program by virtue of being configured to prevent an in-bound network connection to said first program, said in-bound network connection being in-bound relative to said first program, and
said first program is configured to create said first network connection as an out-bound network connection from said first program to said second program.

62. (Previously Presented) The network of claim 57, wherein
said second network connection is created from said second program to said third program through a second firewall program,
said second firewall program prevents access to said second program initiated by said third program, and
said second network connection is initiated by said second program.

63. (Original) The network of claim 54, further comprising:
a fourth program executed on a fifth computer coupled to said first computer, wherein
said first program is configured to initiate a third network connection to said
fourth program, said third network connection being in-bound relative to
said fourth program, and
said fourth program is configured to require said third network connection to be
initiated as an in-bound network connection relative to said fourth
program.
64. (Original) The network of claim 63, wherein said first firewall program also
prevents access to said first program initiated by said second program.
65. (Original) The network of claim 63, wherein said first firewall program also
prevents access to said fourth program initiated by said second program.
66. (Original) The network of claim 63, wherein
said first firewall program prevents access to said first and said fourth programs by
preventing in-bound network connections to said first and said fourth programs,
and
said first network connection is created as an out-bound network connection from said
first program to said second program.
- 67-68. (Canceled)
69. (Original) A network comprising:
a first program executed on a first computer;
a second program executed on a second computer coupled to said first computer;
a first firewall program executed on a third computer coupled to said first computer;
a third program executed on a fourth computer coupled to said second computer, wherein
said first firewall program is configured to prevent access to said first program
initiated by said third program,

said first program is configured to initiate a first network connection to said second program through said first firewall program,
said second program is configured to initiate a second network connection to said first program, said second network connection being in-bound relative to said first program, and
said first program is configured to require said second network connection to be initiated as an in-bound network connection relative to said first program.

70. (Original) The network of claim 69, wherein said first program, said second program and said first firewall program are executed on said first computer.

71. (Original) The network of claim 69, wherein
said first firewall program prevents access to said first program by preventing said in-bound network connection to be initiated from a side of said first firewall program that is opposite to a side of said first firewall program to which said first program is coupled, and
said second network connection is created as an out-bound network connection from said second program to said third program.

72. (Original) The network of claim 71, wherein said first firewall program is also configured to prevent access to said second program initiated by said third program.

73. (Original) A method of communicating information between a first program and a second program over a network comprising:

creating a first out-bound network connection from a first communications program to said first program, wherein said first out-bound network connection is out-bound relative to said first communications program;
creating a second out-bound network connection from said first communications program to said second program through a first firewall program, wherein
said second out-bound network connection is out-bound relative to said first communications program
said first firewall program prevents in-bound access to said first program,

said in-bound access is a network connection that is in-bound relative to said first program, and
said first program is configured to accept only an in-bound connection to said first program; and
relaying said information between said first out-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

74. (Original) The method of claim 73, wherein said first communications program is a protocol daemon.

75. (Original) The method of claim 73, wherein said second out-bound network connection is created through a second firewall program, wherein said second firewall program prevents in-bound access to said second program.

76. (Original) The method of claim 73, wherein said first program, said first communications program and said first firewall program are executed on a first computer system.

77. (Previously Presented) A computer system for communicating information comprising:

a processor;
computer readable medium coupled to said processor; and
computer code, encoded in said computer readable medium, configured to cause said processor to:
create a first out-bound network connection from a first communications program to said first program, wherein said first out-bound network connection is out-bound relative to said first communications program;
create a second out-bound network connection from said first communications program to said second program through a first firewall program, wherein said second out-bound network connection is out-bound relative to said first communications program

said first firewall program prevents in-bound access to said first program,
said in-bound access is a network connection that is in-bound relative to
said first program, and
said first program is configured to accept only an in-bound connection to
said first program; and
relay said information between said first out-bound network connection and said
second out-bound network connection, said relaying performed by said
first communications program.

78. (Original) The computer system of claim 77, wherein said first communications program is a protocol daemon.

79. (Original) The computer system of claim 77, wherein said computer code configured to cause said processor to create said second out-bound network connection is further configured to cause said processor to:

create said second out-bound network connection through a second firewall program,
wherein said second firewall program prevents in-bound access to said second program.

80. (Original) The computer system of claim 77, wherein said computer code configured to cause said processor to create said first out-bound network connection, create said second out-bound network connection, and relay said information is executed on a single processor.

81. (Original) A computer program product encoded in computer readable media, said computer program product comprising:

a first set of instructions, executable on a computer system, configured to create a first out-bound network connection from a first communications program to said first program, wherein said first out-bound network connection is out-bound relative to said first communications program;

a second set of instructions, executable on said computer system, configured to create a second out-bound network connection from said first communications program to said second program through a first firewall program, wherein said second out-bound network connection is out-bound relative to said first communications program
said first firewall program prevents in-bound access to said first program, said in-bound access is a network connection that is in-bound relative to said first program, and
said first program is configured to accept only an in-bound connection to said first program; and
a third set of instructions, executable on said computer system, configured to relay said information between said first out-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

82. (Original) The computer program product of claim 81, wherein said first communications program is a protocol daemon.

83. (Original) The computer program product of claim 81, wherein said second set of instructions comprises:

a fourth set of instructions, executable on said computer system, configured to create said second out-bound network connection through a second firewall program, wherein said second firewall program prevents in-bound access to said second program.

84. (Original) The computer program product of claim 81, wherein said first, said second and said third sets of instructions are executed on a single computer system.

85. (Previously Presented) A method of communicating information between a first program and a second program over a network comprising:

creating a first out-bound network connection between said first program and a first communications program through a first firewall program, wherein

said first out-bound network connection is created by a first protocol daemon that creates a first network connection and a second network connection, said first network connection is between said first program and said first protocol daemon, and is in-bound to said first program, said second network connection is between said first protocol daemon and first communications program, and is out-bound to said first protocol daemon, said first out-bound network connection is out-bound relative to said first program, and said first firewall program prevents in-bound access to said first program; and creating a second out-bound network connection between said second program and said first communications program through a second firewall program, wherein said second out-bound network connection is created by a second protocol daemon that creates a third network connection and a fourth network connection, said third network connection is between said second program and said second protocol daemon, and is in-bound to said second program, said fourth network connection is between said second protocol daemon and first communications program, and is out-bound to said second protocol daemon, said second out-bound network connection is out-bound relative to said second program, and said second firewall program prevents in-bound access to said second program; and relaying said information between said first out-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

86. (Original) The method of claim 85, wherein said first communications program is a relay program.

87. (Original) The method of claim 85, further comprising:
creating a third out-bound network connection from said first program to a third program.

88. (Original) The method of claim 87, wherein
said third out-bound network connection is out-bound relative to said first program and
in-bound relative to said third program, and
said third program is configured to accept only an in-bound connection to said third
program.

89. (Original) The method of claim 85, wherein said first program, said first
communications program and said first firewall program are executed on a first computer
system.

90. (Original) The method of claim 85, wherein said second program, said first
communications program and said second firewall program are executed on a first computer
system.

91. (Previously Presented) A computer system comprising:
a processor;
computer readable medium coupled to said processor; and
computer code, encoded in said computer readable medium, configured to cause said
processor to:
create a first out-bound network connection between said first program and a first
communications program through a first firewall program, wherein
said first out-bound network connection is created by a first protocol
daemon that creates a first network connection and a second
network connection,
said first network connection is between said first program and said first
protocol daemon, and is in-bound to said first program,
said second network connection is between said first protocol daemon and
first communications program, and is out-bound to said first
protocol daemon,
said first out-bound network connection is out-bound relative to said first
program, and

said first firewall program prevents in-bound access to said first program;
and
create a second out-bound network connection between said second program and
said first communications program through a second firewall program,
wherein
said second out-bound network connection is created by a second protocol
daemon that creates a third network connection and a fourth
network connection,
said third network connection is between said second program and said
second protocol daemon, and is in-bound to said second program,
said fourth network connection is between said second protocol daemon
and first communications program, and is out-bound to said second
protocol daemon,
said second out-bound network connection is out-bound relative to said
second program, and
said second firewall program prevents in-bound access to said second
program; and
relay said information between said first out-bound network connection and said
second out-bound network connection, said relaying performed by said
first communications program.

92. (Original) The computer system of claim 91, wherein said first communications program is a relay program.

93. (Original) The computer system of claim 91, wherein said computer code is further configured to cause said processor to:
create a third out-bound network connection from said first program to a third program.

94. (Original) The computer system of claim 93, wherein
said third out-bound network connection is out-bound relative to said first program and
in-bound relative to said third program, and

said third program is configured to accept only an in-bound connection to said third program.

95. (Original) The computer system of claim 91, wherein said first program, said first communications program and said first firewall program are executed on a single processor.

96. (Original) The computer system of claim 91, wherein said second program, said first communications program and said second firewall program are executed on a first computer system.

97. (Previously Presented) A computer program product encoded in computer readable media, said computer program product comprising:

a first set of instructions, executable on a computer system, configured to create a first out-bound network connection between said first program and a first communications program through a first firewall program, wherein said first out-bound network connection is created by a first protocol daemon that creates a first network connection and a second network connection, said first network connection is between said first program and said first protocol daemon, and is in-bound to said first program, said second network connection is between said first protocol daemon and first communications program, and is out-bound to said first protocol daemon, said first out-bound network connection is out-bound relative to said first program, and

said first firewall program prevents in-bound access to said first program; and

a second set of instructions, executable on said computer system, configured to create a second out-bound network connection between said second program and said first communications program through a second firewall program, wherein said second out-bound network connection is created by a second protocol daemon that creates a third network connection and a fourth network connection,

said third network connection is between said second program and said second protocol daemon, and is in-bound to said second program,

said fourth network connection is between said second protocol daemon and first communications program, and is out-bound to said second protocol daemon,

said second out-bound network connection is out-bound relative to said second program, and

said second firewall program prevents in-bound access to said second program;
and

a third set of instructions, executable on said computer system, configured to relay said information between said first out-bound network connection and said second out-bound network connection, said relaying performed by said first communications program.

98. (Original) The computer program product of claim 97, wherein said first communications program is a relay program.

99. (Original) The computer program product of claim 97, wherein said computer program product further comprises:

a fourth set of instructions, executable on said computer system, configured to create a third out-bound network connection from said first program to a third program.

100. (Original) The computer program product of claim 99, wherein said third out-bound network connection is out-bound relative to said first program and in-bound relative to said third program, and said third program is configured to accept only an in-bound connection to said third program.

101. (Original) The computer program product of claim 97, wherein said first program, said first communications program and said first firewall program are executed on a single processor.

102. (Original) The computer program product of claim 97, wherein said second program, said first communications program and said second firewall program are executed on a first computer system.

103. (Previously Presented) A method of supporting network communications comprising:

creating a first network connection between a first communications program and a first program;

creating a second network connection from said first communications program to a second communications program, wherein said first communications program creates said second network connection through a first firewall program;

creating a third network connection between a second program and said second communications program;

communicating information between said first program and said second program by communicating said information over said first network connection, said second network connection and said third network connection,

communicating said information between said first network connection and said second network connection via said first communications program, and communicating said information between said second network connection and

said third network connection via said second communications program;

providing a first instance of a password to said first communications program;

passing said first instance of said password from said first communications program to said second communications program during creation of said second network connection;

providing a second instance of said password to said second program;

passing said second instance of said password from said second program to said second communications program during creation of said third network connection; and

associating said second connection with said third connection using said first and said second instances of said password.

104. (Previously Presented) The method of claim 103, wherein said passing said first instance of said password further comprises:

sending said first instance of said password from said first communications program to said second communications program; and
entering information regarding said second network connection and said password in a connection list maintained by said second communications program, said first instance of said password being entered in a password entry.

105. (Previously Presented) The method of claim 103, wherein said associating further comprises:

matching said second instance of said password with said password entry in said connection list, said password entry containing said password;
entering information regarding said third network connection in said connection list; and
associating said second and third connections.

106. (Previously Presented) The method of claim 105, wherein said associating said second and third connections further comprises:
relaying said information between said second and third connections.